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U. S. Geological Survey Carlsbad, N. M.

REPORT	OF	SUBSIDENCE	SURVEY

JACKPILE MINE

LAGUNA, NEW MEXICO

Confidential Claim Retracted

Authorized by:

PREPARED BY HARMON ENGINEERING SURVEYS

Laguna, New Mexico

February 2, 1976

ABSTRACT:

A second order survey of thirty-four (34) points above present and projected tunneling associated with uranium mining activity.

All points involved in the subsidence survey are punched brass disks set in concrete, with the concrete monument projecting an average of twenty-four inches below the ground line.

For a base of control outside the area of projected subsidence, a first order quadrilateral was developed (see Fig. 1) for use in subsequent surveys.

Origin of coordinates and elevation for the project is based upon published coordinates for Tristation FM-19:

N: 1001934.160 E: 988486.480 Elev: 6438.664

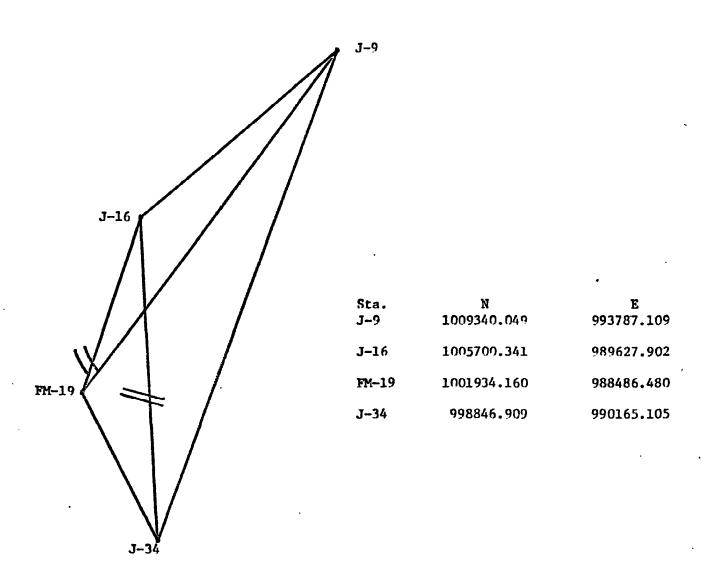
Positional accuracy in northing and easting is projected as \pm 0.025' (major axis of error ellipse) and \pm 0.004' for elevations listed.

Date of survey is period January 23rd to February 3rd, 1976.

ANACONDA SUBSIDERCÉ PRVEY PROGRAM ACCEPTLE HINE, LAGURA, NEW MEXICO

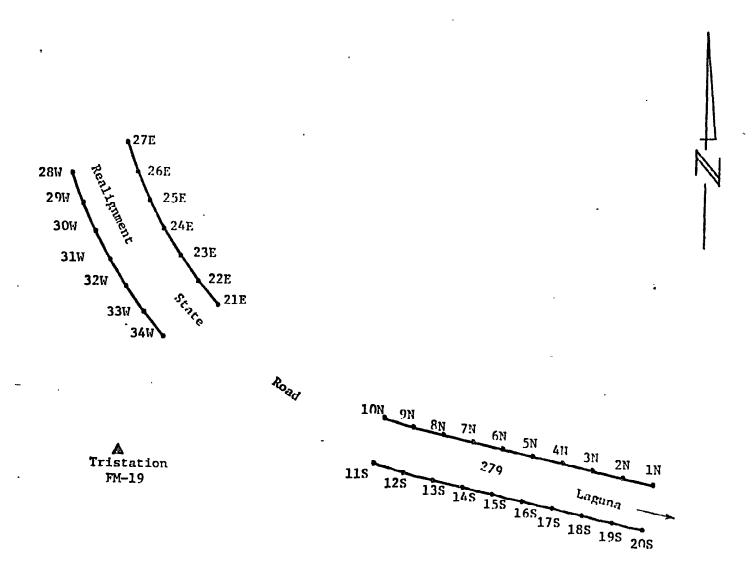
POINT	NORTHING	FASTING	POIN	northing	EASTING	
1N	1001855.808000	990225.720000	2N	1001877.383000	990128,213000	··
[3n	1001898.995000	790030.618000	4N	1001921.721000	989933.331000	
•	1001941.949000	989835.653000	En	1001963.563000	989738.017000	
,	1001985.048000	989640.817000	~ 811	1002006.574000	989543,215000	
9N	1002029.772000	089445.980000	101	1002057.904000	989350.333000	<u> </u>
115	1001911.929000	989317.562000	12s	1001883.652000	989413.313000	;
135	1001860.517000	989510.569000	14s	1001838,964000	989608.156000	
158	1001817.462000	989705.581000	168	1001795.905000	989803,063000	
175	1001774.463000	989900.596000	185	1001752.915000	989998.183000	
195	1001731.347000	9900957654000	20s	1001709.817000	990193.223000	
21E	1002413.915000	988801.632000	22E	1002488,069000	988735,171000	
23E	1002567.974000	988675.106000	24E	1002651.983000	988621.025000	
25E	1002739.832000	988573.319000	26E	1002831.022000	988532,215000	
27E	1002925.968000	988498.705900	281/	1002820.744000	988322.298000	
291/	1002727.672000	988358.820000	3014	1002637.271000	988401.342000	
31w	1002549.646000	988449.424000	32W	1002465.376000	988503.132000	
33W	1002384.631000	988562.138000	34W	1002307.966000	988626.175000	
POINT	ELEVATION	POIN	m	ELEVATION		
		mer en	.,	(200 EEO		
1N 3N	6281.611 6293.597	2n 4n		6288.550 6303.779		٠.
5N 5N	6315.679	6N		6313.817		
	6325.274	8N		6333.117		
9N	6346.807	10H		6356.419		
115	6364.244	178		6355.790		
				6349.066		
138	6349.487	148				
15S	6329.382	168		6319.279		•
178	6317.522	185		6311.188		
198	6303.924	208		6297.436		•
21E	6374.552	?2E		6374.411	,	
23E	6370.097	24E		6372.278		
25E	6375.064	²⁶ 26E		6375.344		•
27E	6362.66 8	28W		6382.056		
29W	6389.707	301/		6396.273		
31W			•		2	
	6397.166 6397.531	32W 34U	•	6396.564	2	

FIGURE 1: Control Quadrilateral for Subsidence Survey



SCALE: 1" = 2000'

FIGURE 2: Configuration of Subsidence Stations



SCALE: 1" = 300'

CERTIFICATION

This is to certify that the data contained within this report was derived from actual field surveys made by me or under my supervision, that all data is conformal to the specifications stated herein, and that the same is true and correct to the best of my knowledge and belief.

The D. Marmon

Fred D. Marmon, Registered Land Surveyor, Certificate No. 2031



1st QUARTER RESURVEY
REPORT OF SUBSIDENCE SURVEY
JACKPILE MINE
LAGUNA, NEW MEXICO

PREPARED BY MARMON ENGINEERING SURVEYS

Laguna, New Mexico
April 1, 1976

April 1st resurvey of subsidence stations, Jackpile Mine, Laguna, NM Survey performed March 28 - April 1st, 1976.

Station	Northing	Easting	Delta initial survey N E
1N	1001855.830	990225.745	+.022 +.025
2N .	1001877.362	990128.158	021055
3N	1001898.978	990030.597	017021
4N	1001921.705	989933.285	016046
5N	1001941.962	989835.628	+.013025
6N	1001963.575	989738.023	+.008 +.006
7N	1001985.035	989640.816	013001
8N	1002006.571	989543.210	003 005
9N :	1002029.757	989446.046	015 +.066
10N	1002057.899	989350.333	005000
11s	1001911.958	989317.553	+.029009
125	1001883.654	989413.313	+.002000
13 S	1001860.540	989510.563	+.023006
14S	1001838.959	989608.146	005010
15s	1001817.437	989705.580	025001
16 s	1001795.947	989803.039	+.042024
17 S	1001774.513	989900.562	+.050034
18s	1001752.884	989998.147	031036
195	1001731.369	990095.593	+.022061
20 S	1001709.822	990193.207	+.005016

page 1

Station	Northing	Easting	Delta initia N	al survey E
			••	-
21E	1002413.879	988801.646	036	+.014
22E	1002488.090	988735.153	+.021	018
23E	1002567.993	988675.094	+.019	012
24E	1002651.972	988621.003	011	022
25E	1002739.826	988573.331	006	+.012
26E	1002831.036	988532.232	+.014	+.017
27E	1002925.992	988498.689	+.024	016
28W	1002820.788	988322.286	+.044	012
2 9W	1002727.701	988358.830	+.029	+.010
30W	1002637.296	988401.339	+.025	003
31W	1002549.649	988449.415	+.003	009
32W	1002465.376	988503.123	000	009
33W	1002384.672	988562.123	009	015
34W	1002307.984	988626.172	+.018	003

page 2

LEVEL NET

Station	Elevation	Delta initial survey
1N	6281.596	015
2N	628 8.533	017
· 3N	6293. 574	023
4N	6303.752	027
5N	6315.654	025
6N	6313.801	016
7N	6325.256	018
8N	6333. 108	009
9N	6346.8 01	006
10N	6356.407	012
11 S	6364. 238	006
12 S	6355.7 83	007
138	6349.4 84	003
148	6349. 060	006
. 15 S	6329. 379	003
168	6319.276	003
178	6317.523	+.001
185	6311.187	001
19 5	6303.917	007
20S	6297.4 25	011
21E	6374. 522	030
22E	6374.390	021
23E	6370. 070	027
24E	6372.25 4	024
25E	6375.038	026
26E	6375.3 30	014
27E	6362.628	040
28W	6382.054	002
29W	6389.711	+.004
30W	6396.274	+.001
31W	6390.168	+.002
32W	6396.570	+.006
33W	6397. 536	+.005
34W	6395.11 5	+.001 page 3
	•	

CERTIFICATION

This is to certify that the data contained within this report was derived from actual field surveys made by me or under my supervision, and that the same is true and correct to the best of my knowledge and belief.

Fis D. Murmon

Fred D. Marmon, Registered Land Surveyor, Certificate No. 2031

April 1st, 1976

page 4

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State of New Mexico	2-16-76
Environmental Improvement Agency BACTERIOLOGICAL	MATER REPORTED
BACTERIOLOGICAE	The state of the s
, O O O	Z) EAL FINA
- CLACKER & Morsette 1/41 SOVER 132	W/ 2/4/16 /6225
Town County & A Stronger	Date Received Lab No.
Date Collected 4 11 7 6 Collected By FET FITC #	RESULTS OF TESTS 1-R COLIFORM GROUP
Owner of System THS ANACOALDA CO 9H	Presumption Confirmed Completed
Collection Point: LACTO 112 P-10 Muse 1/0//	Volume Hours Hours Hours
PUBLIC SEMI-PUBLIC PRIVATE 💢 SWIMMING POOL SWIP.C. SPECIAL 🗆	10 ml.
Stream/Lake Name Sewage/Industrial Plant Name	10 mi.
RIVER BASIN: RIO GRANDE TO PECOS . SAN JUAN . GILA . CANADIAN .	10 mi.
LITTLE COLORADO DO OTHER	10 mt.
SANITARY SURVEY COMPLETED- YES O NO O	CONFORMS DOES NOT CONFORM D
CHECK TEST REQUIRED: POTABILITY; COLIFORM GROUP, MEMBRANE FILTER	WITH DRINKING WATER STANDARDS
STANDARD PLAYE COUNT FECAL COLIFORM FECAL STREPTOCOCCI Re-Sample No	Collions Colonies (MF) /100 ML.
	Fecal Coliform (MF) /100 ML.
SEND REPORT TO THE FOLLOWING (NAME & ADDRESS)	Fecal Streptococci (MF)/100 ML.
1	Other
T.R.BELK, MANAGER	
THE ANACONDA CO	Date Reported 2 11
. FOROX INS	mate wabouted
Georg N. M. 87020	
5. Please give full information to avoid delay in report. 2. Typh or print with pencil or ball point p 4. No sample shall be accepted until a sanitary survey by a representative of the Environmental authorized.	
2. Please give full information to avoid delay in report. 2. Type or print with pencil or ball point p 4. No sample shall be accepted until a sanitary survey by a representative of the Environmental authorized.	
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2. Please give full information to avoid delay in report. 2. Type or print with pencil or ball point p 4. No sample shall be accepted until a sanitary survey by a representative of the Environmental authorized. EIA 005 Form issued 11/73 (Replaces LAB 005) (c)	RECEIVED
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1. Please give full information to avoid delay in report. 2. Type or print with pencil or ball point p 4. No sample shall be accepted until a sanitary survey by a representative of the Environmental authorized. EIA 005 Form issued 11/73 (Replaces LAB 005) State of New Mexico absolute authorized absolute authorized	RECEIVED 2-9-76-64201 WATER REPORT Data Received Completed Velume Hours Hours Hours Hours 10 mt. 10 mt. 10 mt. 10 mt. CONFORMS DEED DOES NOT CONFORM D
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3. Please give full information to avoid delay in report. 2. Type or print with pencil or ball point pen. 3. See back of first copy for important information.
4. No sample shall be accepted until a sanitary survey by a representative of the Environmental Improvement Agency has been made and such sampling authorized.

SEND REPORT TO THE FOLLOWING (NAME & ADDRESS)

Grants, New Mexico

Mr. T. R. Beck, Manager The Anaconda Company P. O. Box 638

EIA 005 Form (ssued 11/73 (Replaces LAB 005)

(over)

Other

THE ANACONDA COMPANY WATER ANALYSIS

DESCRIPTION	Date	Cl ppm	SO ₄ ppm	NO3 ppm	Na ppm	Cond umhos	рH	U-Nat pCi/l	Ra-226 pCi/l	Th-23 pCi/1
Jackpile P-10 Well	2-5	24	539	2	470	1600	8.1	1.5	0.2	1.0
Jackpile New Shop Well	2-5	28	613	1	515	1500	8.1	1.4	1.0	1.5
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IFIDENTIAL		1					POL-E	PA01-0	00564	1

WATER PUMPED

	Gallons
P-10 Well	2,400,000
New Shop Well	270,000
P-10 Mine	3,600.000